

Claims:

1. A Livin-derived pro-apoptotic peptide.
2. A peptide as defined in claim 1, selected from any one of p30-Livin α and p28-Livin β .
3. A peptide as defined in any one of claims 1 or 2, wherein said p30-Livin α peptide comprises the sequence substantially as defined in SEQ. ID. NO.1, or functional analogues, derivatives or fragments thereof.
4. A peptide as defined in any one of claims 1 or 2, wherein said p28-Livin β peptide comprises the sequence substantially as defined in SEQ. ID. NO.2, or functional analogues, derivatives or fragments thereof.
5. A Livin-derived peptide selected from any one of p30-Livin α and p28-Livin β .
6. A peptide as defined in claim 5, wherein said p30-Livin α peptide comprises the sequence substantially as defined in SEQ. ID. NO.1, or functional analogues, derivatives or fragments thereof.
7. A peptide as defined in claim 5, wherein said p28-Livin β peptide comprises the sequence substantially as defined in SEQ. ID. NO.2, or functional analogues, derivatives or fragments thereof.
8. A peptide as defined in claim 5, wherein said p30-Livin α has the amino acid sequence as defined in SEQ. ID.NO.1.
9. A peptide as defined in claim 5, wherein said p28-Livin β has the amino acid sequence as defined in SEQ. ID.NO.2.

10. A pharmaceutical composition for inducing and/or enhancing apoptosis, comprising as active ingredient at least one peptide as defined in any one of claims 1 to 9.

11. A pharmaceutical composition as defined in claim 10 for enhancing apoptosis, wherein said apoptosis is induced by a treatment or agent selected from any one of etoposide, anti-CD95/Fas, TNF α and staurosporine.

12. A pharmaceutical composition as defined in claim 10, for inducing programmed cell death.

13. A pharmaceutical composition as defined in claim 12, for inducing programmed cell death of malignant cells.

14. Use of a peptide as defined in any one of claims 1 to 9, as an agent for the induction of apoptosis.

15. Use of a peptide as defined in any one of claims 1 to 9, as an agent for the enhancement of apoptosis.

16. Use of a peptide as defined in any one of claims 1 to 9, as an agent for the induction of programmed cell death.

17. Use of a peptide as defined in any one of claims 1 to 9, as an agent for the induction of programmed cell death in malignant cells.

18. Use of a peptide as defined in any one of claims 1 to 9, as an agent for enhancing the sensitivity of cells to death-inducing treatments or agents.

19. The use as defined in claim 18, wherein said cells are malignant cells.

20. Use of a pharmaceutical composition as defined in any one of claims 10 to 13, as an agent for enhancing the sensitivity of cells to death-inducing treatments or agents.

21. The use as defined in any one of claims 18 to 20, wherein said death-inducing treatments or agents are selected from any one of etoposide, anti-CD95/Fas, TNF α and staurosporine.

22. The use as defined in any one of claims 18 to 21, wherein said cells are malignant cells.

23. Method of preparation of a pharmaceutical composition for the induction of apoptosis, comprising the step of admixing any one of the peptides as defined in claims 1 to 9, with a pharmaceutically acceptable adjuvant, carrier or diluent, and optionally with at least one additional active agent.

24. Method of enhancing the sensitivity of cells to death-inducing treatments or agents, comprising the steps of:

- (a) Introducing a Livin-derived peptide as defined in any one of claims 1 to 9 into a cell; and
- (b) Treating said cell with death-inducing agents or treatments.

25. The method as defined in claim 24, wherein said cells are malignant cells.

26. Use of the pharmaceutical composition as defined in any one of claims 10 to 13 for the treatment of cancer.